



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/695,089

10/25/2000

Takeshi Maeda

500.37445CX1

2432

20457

7590

07/30/2004

ANTONELLI, TERRY, STOUT & KRAUS, LLP
1300 NORTH SEVENTEENTH STREET
SUITE 1800
ARLINGTON, VA 22209-9889

EXAMINER

CHU, KIM KWOK

ART UNIT

PAPER NUMBER

2653

19

DATE MAILED: 07/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/695,089

Applicant(s)

MAEDA ET AL.8

Examiner

Kim-Kwok CHU ,

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 4/23/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-16, 19 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7, 8, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 9-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/366,641.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. 19.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

Response to Remarks

1. Applicant's Remarks filed on April 23, 2004 have been fully considered.

(a) Applicant states that the prior art of Fuji's filing date is subsequent to the filing date of the claimed priority date of this Application. Newly found prior art of Toda (5,642,343) in view of Bakx (5,303,217) is used to reject the amended claims.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 7, 8, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toda et al. (U.S. Patent 5,642,343) in view of Bakx (U.S. Patent 5,303,217).

Toda teaches a recording medium having elements and means very similar to that of the instant invention. For example, in claims 7 and 19, Toda teaches the following:

- (a) as in claim 7, a disk-shaped substrate 1 (Fig. 27);
- (b) as in claim 7, at least one track 1400 being provided on the substrate (Figs. 3(c) and 39);
- (c) as in claim 7, a zone including at least one track (Fig. 39; a recording zone has a plurality of tracks);
- (d) as in claim 7, a lookup table 278 having information about edge shifting values of at least one of a leading and trailing edge of at least one recording pulse (Fig. 27; column 31, lines 134-37);
- (e) as in claim 7, the edge shifting values are determined by combination of a length $M(n)$ of a mark being currently written and at least one of a length $s(n-1)$ of a space precedent to the mark and a length $s(n+1)$ of a space subsequent to the mark, and which can be positive and negative (Fig. 24; adjusted signal 302 has edge shifting values with respect to marks and spaces); and
- (f) as in claim 19, the edge shifting values are for at least one of a leading and trailing edge of one recording pulse for recording a mark $3T_w$ long, where T_w is a time width (Fig. 12).

However, Toda does not teach the following:

- (a) as in claim 7, the lookup table is in a zone of the disk-shape substrate.

Bakx teaches the following:

(a) a disk-shaped substrate 4 having zones (Fig. 11; a recording zone such as PCA, PMA, lead-in etc.); and

(b) the zone stores a lookup table (Fig. 11; information stored in the look up table determines a recording pulse/EFM signal's edges; column 4, lines 17-24; column 11, lines 26-39).

To overcome the variation of a mark length, it would have been obvious to one of ordinary skill in the art to record Toda's waveform edge adjustment values in the form of a look-up table in a disk zone such as Bakx's, because the specific edge adjustment values about the waveform of a recording pulse recorded on the disk can be read when the disk is loaded.

4. Claims 8 and 20 have limitations similar to those treated in the above rejection, and are met by the references as discussed above.

Allowable Subject Matter

5. Claims 9-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is an Examiner's statement of reasons for the indication of allowable subject matter:

As in claim 9, the prior art of record fails to teach or fairly suggest the following:

(a) the edge shifting values are for a leading edge of a first recording pulse and a trailing edge of a last recording pulse of a plurality of recording pulses.

As in claim 10, the prior art of record fails to teach or fairly suggest the following:

(a) the edge shifting values are for a leading and trailing edge of a first recording pulse and a trailing edge of a last recording pulse of a plurality of recording pulses.

As in claim 11, the prior art of record fails to teach or fairly suggest the following:

(a) the edge shifting values are for a leading edge of a first recording pulse and a leading and trailing edge of a last recording pulse of a plurality of recording pulses.

As in claim 12, the prior art of record fails to teach or fairly suggest the following:

(a) as in claim 12, the edge shifting values are for a leading and trailing edge of each of first and a last recording pulse of a plurality of recording pulses.

As in claim 13, the prior art of record fails to teach or fairly suggest the following:

(a) the edge shifting values are for a leading edge of a first recording pulse of a plurality of recording pulses.

As in claim 14, the prior art of record fails to teach or fairly suggest the following:

(a) the edge shifting values are for a leading and trailing edge of a first recording pulse of a plurality of recording pulses.

As in claim 15, the prior art of record fails to teach or fairly suggest the following:

(a) the edge shifting values are for a trailing edge of a last recording pulse of a plurality of recording pulses.

As in claim 16, the prior art of record fails to teach or fairly suggest the following:

(a) the edge shifting values are for a leading and trailing edge of a last recording pulse of a plurality of recording pulses.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kobayashi et al. (6226,243) is pertinent because Kobayashi teaches an edge correction table.

8. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C.
20231 Or faxed to:

(703) 872-9306 (for formal communications intended for entry. Or:

(703) 746-6909, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2021 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim CHU whose telephone number is (703) 305-3032 between 9:30 am to 6:00 pm, Monday to Friday.

gc 7/24/04
Kim-Kwok CHU
Examiner AU2653
July 22, 2004

(703) 305-3032

William Korzuch
WILLIAM KORZUCH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600